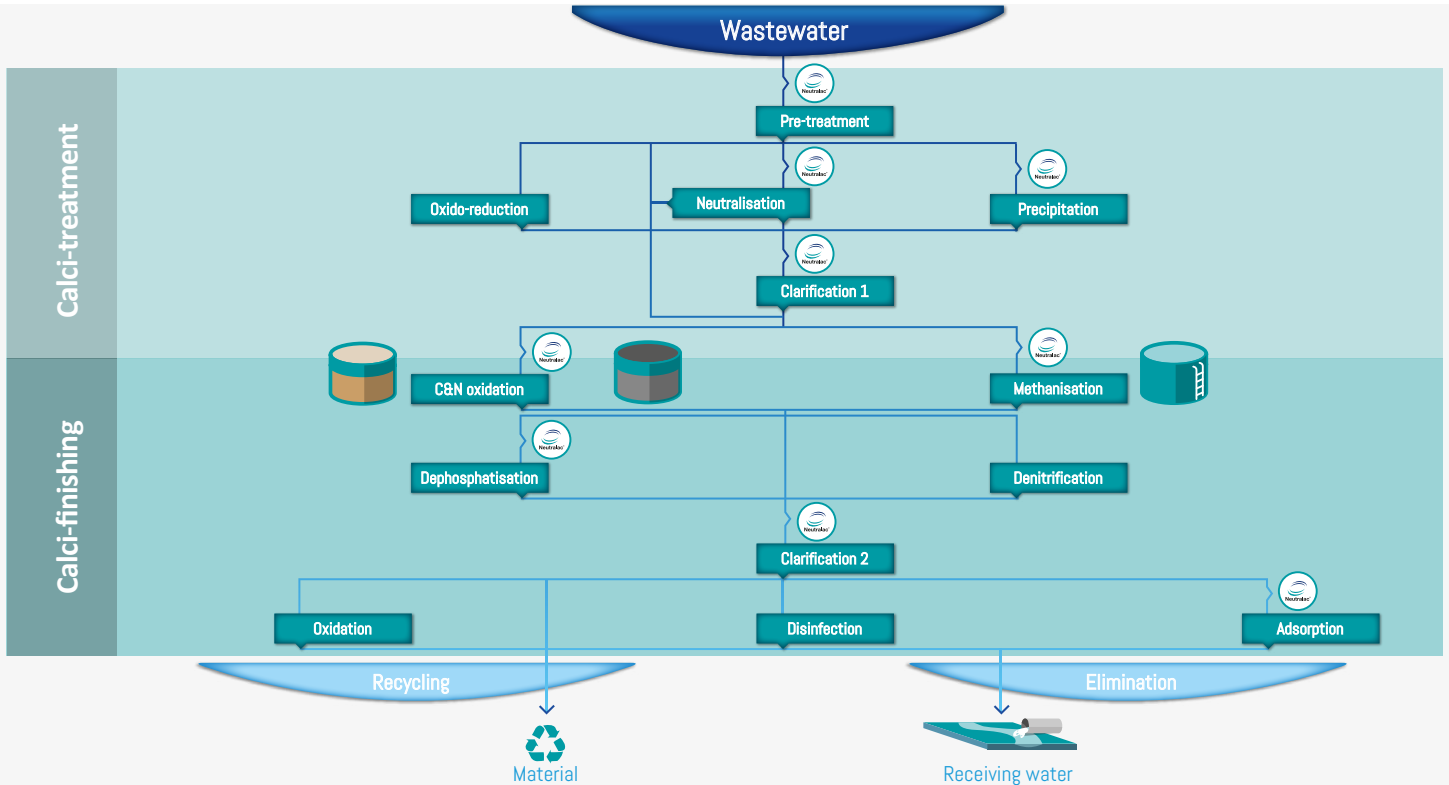




WASTEWATER & SLUDGE TREATMENT

## WASTEWATER PROCESS

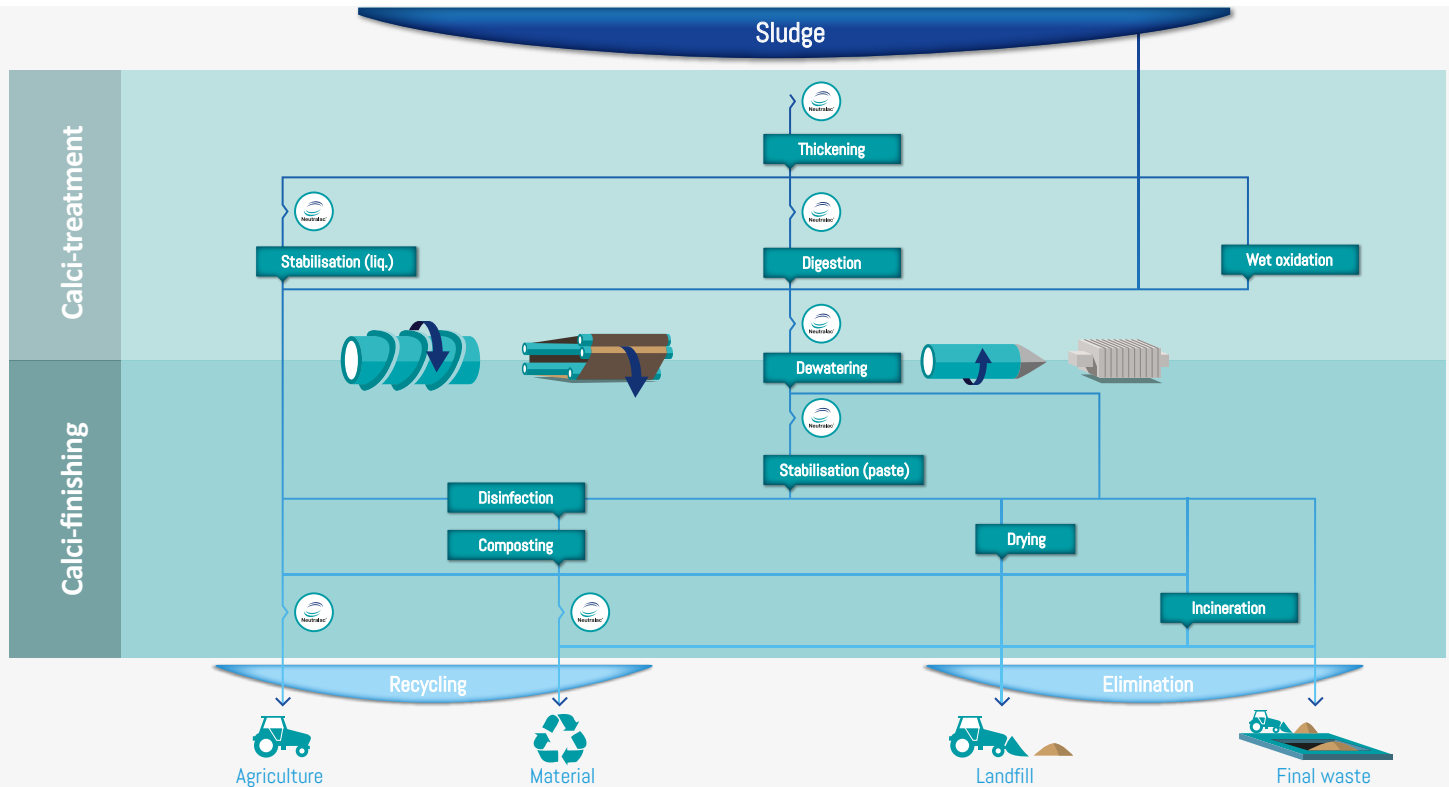


Wastewater treatment is the process of removing contaminants from wastewater. It includes physical, chemical and biological processes to eliminate pollutants. Once treated, water can then be released back into nature or recycled. The Neutralac® offer provides you with specific solutions to optimize the wastewater treatment of municipal purification plants as well as industrial sites.



# WASTEWATER & SLUDGE

## SLUDGE PROCESS



The sludge accumulated in a wastewater treatment process must be treated and disposed of in a safe and effective manner. Which sludge treatment methodology to use depends upon the amount of sludge generated and other site-specific conditions. Neutralac® reagents, which are environmentally-friendly, improve sludge dewatering and hygienisation and produce sludge adapted to the selected disposal route.



# TREATMENT

## FURTHER APPLICATIONS



POLLUTED SOILS



METALLURGICAL  
RESIDUES



MARINE  
SEDIMENTS



MINING  
OPERATIONS

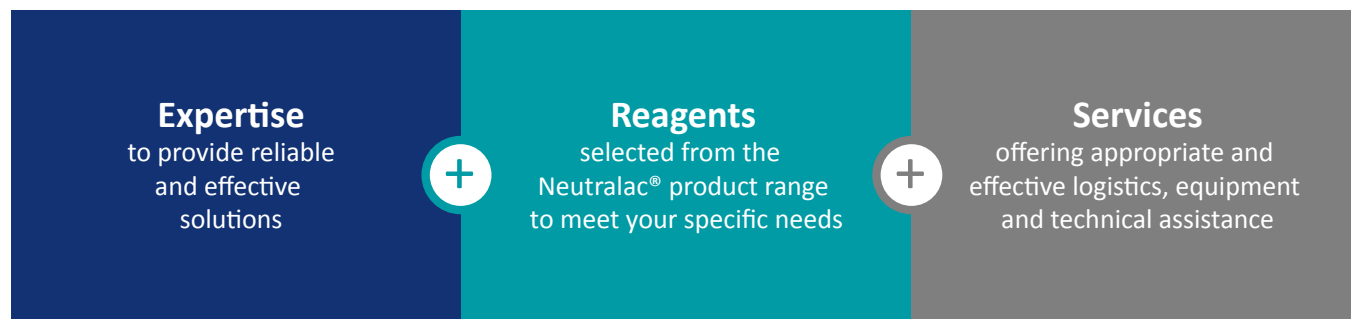


BIOGAS

Thanks to its Neutralac® reagents and technology, Lhoist is developing new solutions to improve the removal of pollutants and reuse of materials, to treat and prevent acidification resulting from mining activities and to optimize biogas generation.



# THE LHOIST OFFER



## SOME EUROPEAN REFERENCES

### Lagoon treatment

Issue: Odor control

Solution: Neutralac® SL

### Urban water treatment plant

Issue: Filter press dewatering optimisation

Solution: Neutralac® Q SR

### Pharmaceutical industry

Issue: Phosphates removal

Solution: Neutralac® SLS45

### Food processing industry

Issue: Odor control

Solution: Neutralac® SL, Idra-Stock

### Food processing industry

Issue: Biogas yield increase

Solution: Neutralac® SLS45

### Automotive industry

Issue: Heavy metals removal

Solution: Neutralac® SLS45

### Water treatment plant

Issue: Centrifuge dewatering optimisation

Solution: Neutralac® Calci-Flo

### Chemical industry

Issue: Automated milk of lime preparation

Solution: Neutralac® H, Neutralac® Stabi-Matic

### Paper industry

Issue: Clarification of water by milk of lime  
(from Duwa-Matic™)

Solution: Neutralac® Q 90

### Mining industry

Issue: Neutralisation of mining water  
by milk of lime (from Duwa-Matic™)

Solution: Neutralac® Q 90

### Hot-rolled strip plant

Issue: Heavy metal precipitation,  
COD removal, oil elimination

Solution: Neutralac® SLS45

### Paper industry

Issue: pH stabilisation, dehardening,  
odor removal, process stability

Solution: Neutralac® SLS45, Idra-Stock

# PRODUCT RANGE

## Reagents dedicated to neutralisation and stabilisation

Neutralac® C	Calcium carbonate
Neutralac® Q	Quicklime
Neutralac® H	Hydrated lime
Neutralac® SL	Milk of lime

## High performance reagents for a controlled neutralisation

Neutralac® SL HR	Ready-to-use micronised milk of lime
Neutralac® SLS45*	Ready-to-use milk of lime – high reactivity and high concentration

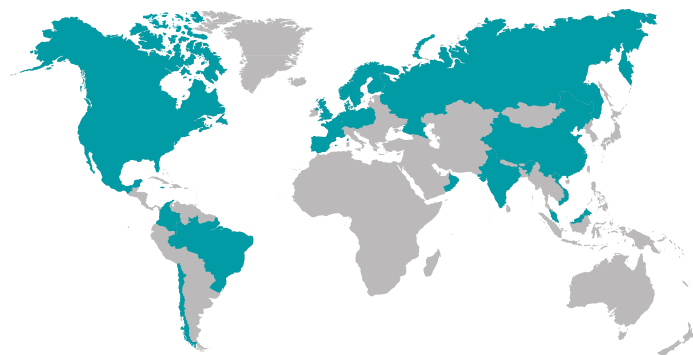
## High performance reagents to improve dewatering performances

Neutralac® Q SR	Lime with delayed reactivity for filter press
Neutralac® Calci-Flo Easy-Light*	Solid polymer/lime hybrid for centrifuge
Neutralac® Calci-Flo Opti-Light*	Liquid polymer/lime hybrid for centrifuge

\* Patented

Lhoist, the partner for wastewater and sludge treatment to serve the environment.

Lhoist is a multi-national company, an expert in lime, dolime and mineral products. The diversity of our product range and our industrial facilities around the world, allow the Group to be a key partner in multiple industries and business sectors.



# THE LHOIST OFFER

**Expertise**  
to provide reliable  
and effective  
solutions

+

**Reagents**  
selected from the  
Neutralac® product range  
to meet your specific needs

+

**Services**  
offering appropriate and  
effective logistics, equipment  
and technical assistance

## SOME EUROPEAN REFERENCES

- Lagoon treatment**  
Issue: Odor control  
Solution: Neutralac® SL

**Urban water treatment plant**  
Issue: Filter press dewatering optimisation  
Solution: Neutralac® Q SR

**Pharmaceutical industry**  
Issue: Phosphates removal  
Solution: Neutralac® SLS45

**Food processing industry**  
Issue: Odor control  
Solution: Neutralac® SL, Idra-Stock

**Food processing industry**  
Issue: Biogas yield increase  
Solution: Neutralac® SLS45
- Automotive industry**  
Issue: Heavy metals removal  
Solution: Neutralac® SLS45

**Water treatment plant**  
Issue: Centrifuge dewatering optimisation  
Solution: Neutralac® Calci-Flo

**Chemical industry**  
Issue: Automated milk of lime preparation  
Solution: Neutralac® H, Neutralac® Stabi-Matic

**Paper industry**  
Issue: Clarification of water by milk of lime (from Duwa-Matic™)  
Solution: Neutralac® Q 90
- Mining industry**  
Issue: Neutralisation of mining water by milk of lime (from Duwa-Matic™)  
Solution: Neutralac® Q 90

**Hot-rolled strip plant**  
Issue: Heavy metal precipitation, COD removal, oil elimination  
Solution: Neutralac® SLS45

**Paper industry**  
Issue: pH stabilisation, dehardening, odor removal, process stability  
Solution: Neutralac® SLS45, Idra-Stock



## PRODUCT RANGE

### Reagents dedicated to neutralisation and stabilisation

Neutralac® C	Calcium carbonate
Neutralac® Q	Quicklime
Neutralac® H	Hydrated lime
Neutralac® SL	Milk of lime

### High performance reagents for a controlled neutralisation

Neutralac® SL HR	Ready-to-use micronised milk of lime
Neutralac® SLS45*	Ready-to-use milk of lime – high reactivity and high concentration

### High performance reagents to improve dewatering performances

Neutralac® Q SR	Lime with delayed reactivity for filter press
Neutralac® Calci-Flo Easy-Light*	Solid polymer/lime hybrid for centrifuge
Neutralac® Calci-Flo Opti-Light*	Liquid polymer/lime hybrid for centrifuge

\* Patented

Lhoist, the partner for  
wastewater and sludge  
treatment to serve the  
environment.

Lhoist is a multi-national company, an expert in lime, dolime and mineral products. The diversity of our product range and our industrial facilities around the world, allow the Group to be a key partner in multiple industries and business sectors.

[www.lhoist.com](http://www.lhoist.com)  
[www.neutralac.com](http://www.neutralac.com)



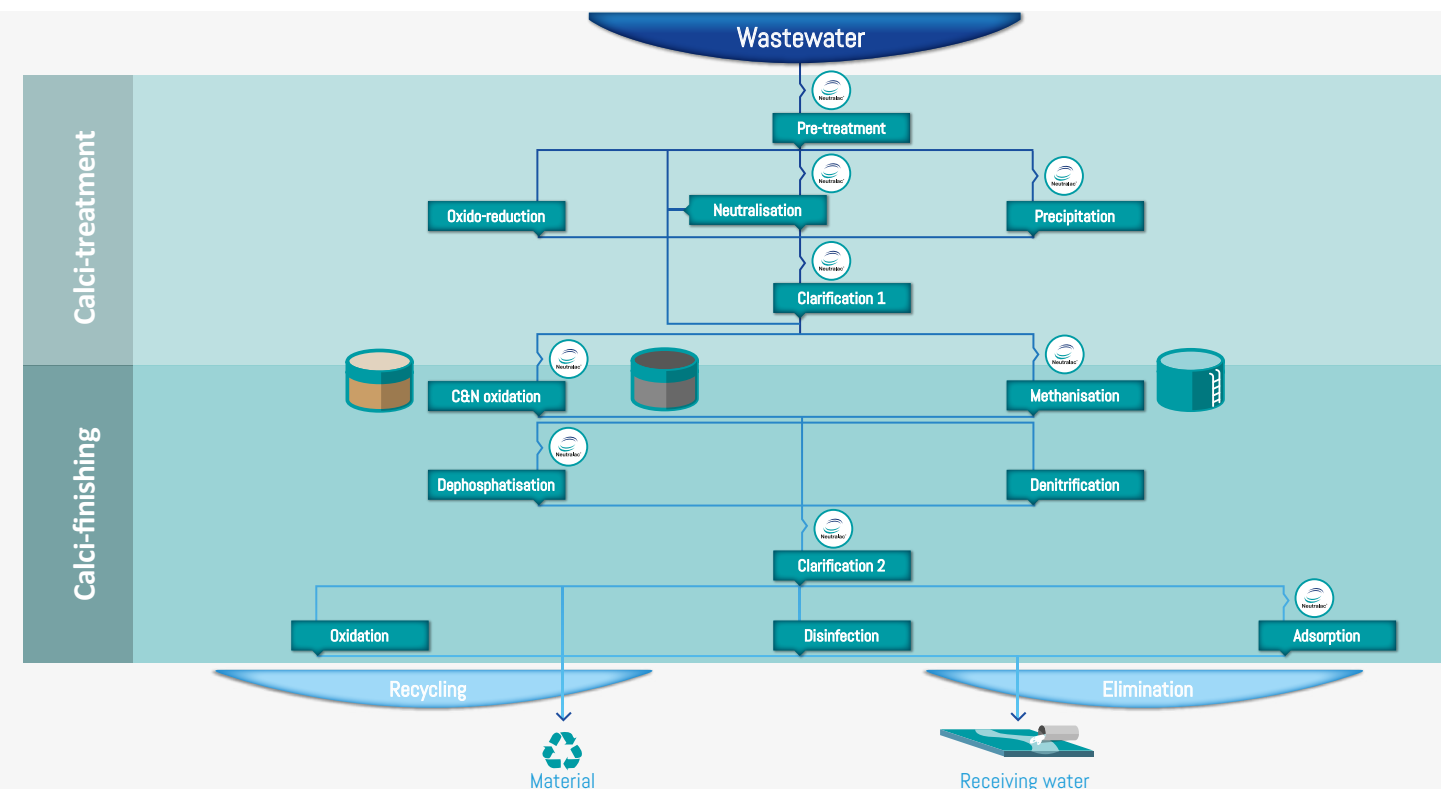
Neutralac® is a registered trademark of Lhoist Recherche et Développement S.A. - Photos: Lhoist / Stock - Dec. 2014

## WASTEWATER & SLUDGE TREATMENT

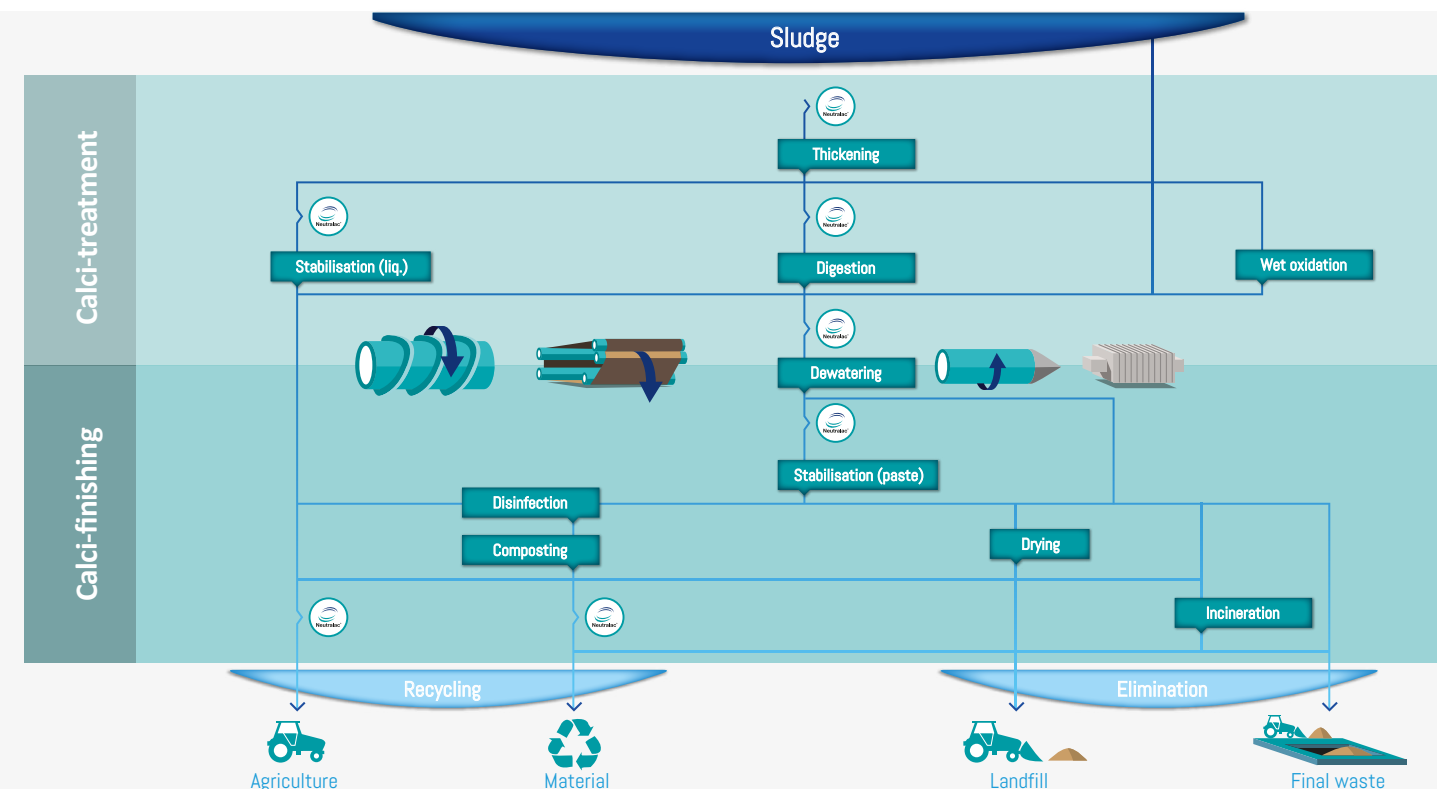


# SOLUTIONS FOR ALL WASTEWATER & SLUDGE TREATMENT

## WASTEWATER PROCESS



## SLUDGE PROCESS



## FURTHER APPLICATIONS



POLLUTED SOILS



METALLURGICAL RESIDUES



MARINE SEDIMENTS



MINING OPERATIONS



BIOGAS

Wastewater treatment is the process of removing contaminants from wastewater. It includes physical, chemical and biological processes to eliminate pollutants. Once treated, water can then be released back into nature or recycled. The Neutralac® offer provides you with specific solutions to optimize the wastewater treatment of municipal purification plants as well as industrial sites.

The sludge accumulated in a wastewater treatment process must be treated and disposed of in a safe and effective manner. Which sludge treatment methodology to use depends upon the amount of sludge generated and other site-specific conditions. Neutralac® reagents, which are environmentally-friendly, improve sludge dewatering and hygienisation and produce sludge adapted to the selected disposal route.

Thanks to its Neutralac® reagents and technology, Lhoist is developing new solutions to improve the removal of pollutants and reuse of materials, to treat and prevent acidification resulting from mining activities and to optimize biogas generation.

